

### **REMARKS**

Favorable reconsideration of this application, as currently amended and in light of the following discussion, is respectfully requested.

Claims 1-29, 31-32, and 34-35 are currently pending. The present amendment amends Claims 1-3, 7-9, 13 and 27 without introducing any new matter or raising new issues; and cancels Claims 30, 33 and 36 without prejudice or disclaimer.

In the outstanding Office Action, Claims 1-28, 31 and 34 were rejected under 35 U.S.C. §103(a) as unpatentable over Danielson et al. (U.S. Patent No. 5,239,662, herein “Danielson”) in view of Mendelson et al. (U.S. Patent No. 6,343,083, herein “Mendelson”) and further in view of St-Pierre et al. (International Publication No. WO 98/37724, herein “St-Pierre”). Claims 29-30, 32-33, and 35-36 were rejected under 35 U.S.C. §103(a) as unpatentable over Danielson, in view of Mendelson, St-Pierre, and Sawyer et al. (U.S. Patent No. 6,058,115, herein “Sawyer”).

In response to the rejection of Claims 1-28, 31 and 34, as unpatentable over Danielson, Mendelson, and St-Pierre, independent Claims 1, 7, 13, and 27 are amended to recite all the features of dependent Claims 30, 33, and 36, respectively, to recite features regarding the selecting of a protocol that minimizes translation burden to a router. Dependent Claims 2-3 and 8-9 are amended to be in accordance with the changes to the respective independent Claims 1 and 7. Consequently, Claims 30, 33 and 36 are cancelled. Since these features have already been considered by the Examiner, the amendments to Claims 1-3, 7-9, 13 and 27 are not believed to raise any new issues. In light of the amendments to the independent claims, Applicants respectfully request reconsideration of the rejection and traverse the rejection, as discussed next.

Briefly recapitulating, Applicants' independent Claim 1 is directed to a communication device including: a central controller configured to establish a communication session between a first object and a second object, the first object employing a first communication protocol used in establishing a communication session with the central controller, the first object having a first adapter configured to translate between another communication protocol that is native to the first object and the first communication protocol, the second object having a second adapter, the second object employing a second communication protocol that is not compatible with the another communication protocol, wherein: the central controller includes a protocol coordination mechanism that compares attributes of different protocols supported by the first adapter and the second adapter when establishing the communication session between the first object and the second object; the central controller includes a database having a list of subscribers with associated calling numbers, the database hosting information associated with the calling numbers for different objects to which the subscribers belong; and the first object is a mobile telephone network, a wire-based telecommunication network, a cable television network, an Ethernet, or an electrical distribution network, wherein when an exactly overlapping language is not available, said protocol coordination mechanism identifies protocols that are within a vocabulary of said first object and said second object and selects a protocol that minimizes a translation burden to a router.

The remaining independent claims recite similar features in the context of a communication system (Claim 7), a method for communicating between objects (Claim 13), and a system for communicating between objects (Claim 27).

As explained in Applicants' specification at page 4, lines 1-12, Claim 1 improves upon background communication devices, since it provides a central facility that helps in a fast and efficient manner different communication protocols that may be common between

the two different networks so that those networks may operate in a direct communication mode.

Applicants respectfully submit that all the applied references, Danielson, in view of Mendelson, St-Pierre, and Sawyer, fail to teach or suggest the Claim 1 feature regarding a protocol coordination mechanism that compares attributes of different protocols, as next discussed.

The outstanding Office Action confirms from page 2, line 22 to page 3, line 2 that Danielson does not teach the “protocol coordination mechanism” and “database” features recited in Claim 1, but asserts that Mendelson, further modified by St-Pierre, teaches these features. Applicants respectfully traverse that position.

Specifically, the Office Action states on page 3 that Mendelson teaches an access network controller containing a cache of tables containing IP to MAC translation addresses and other parameters pertaining to the networks shown in Mendelson’s elements 112 and 110 in Figure 1,<sup>1</sup> and further asserts that “[t]he access network controller compares the parameters within the cache in order to translate the specified destination IP address to a corresponding destination address (Col 13 lines 12-15).” Applicants respectfully disagree, since “compares the parameters within the cache” is not, in fact, taught by Mendelson.

The cited passage of Mendelson states that “[i]n step 516, the ANC 250 acts as an Internet ARP Server “IARPS”, using its own IP-to-MAC address translation cache if possible, and *translates the specified destination IP address to a corresponding destination MAC address*” (emphasis added).<sup>2</sup> Such description does not teach “a protocol coordination mechanism that *compares attributes* of different protocols supported by said first and said second adapter” (emphasis added), as recited in Claim 1. In fact, this does not teach *any*

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<sup>1</sup> See the outstanding Office Action at page 3, lines 3-12 pointing to Mendelson at column 12, lines 26-59.

<sup>2</sup> Mendelson, column 13, lines 12-15. [Emphasis added.]

comparison. Mendelson simply uses a cache table to find a MAC address corresponding to an IP address. Looking in a table to find one or more elements of the table corresponding to a given address does not involve comparing, but rather merely retrieving some information stored in the table.

In other words, an address translation mechanism does not meet a protocol coordination mechanism. The former is a simple operation that can be accomplished by simply looking up in a correspondence table, as in Mendelson; the latter is a more sophisticated mechanism which, in particular and as recited in Claim 1, *compares* attributes of different protocols.

The Office Action does not assert that St-Pierre teaches this feature of independent Claim 1 not taught by Danielson, as indicated in the Office Action, or by Mendelson, as discussed above. In addition, the applied reference Sawyer also does not teach or suggest the protocol coordination mechanism that compares attributes of different protocols. Sawyer recites that “[i]n a task 114, terminating gateway 48 compares the *originating protocol list* and *terminating protocol list* to determine a protocol *common* to both originating subscriber unit 32 and terminating subscriber unit 36” (emphasis added).<sup>3</sup> Accordingly, no attributes of protocols are compared, but mere lists of protocols itself, for example to find out if both gateways can use a common protocol of the lists, such as the PCM protocol.<sup>4</sup> Furthermore, Sawyer teaches that a user maintains and updates the prioritization of the protocol lists,<sup>5</sup> accordingly Sawyer’s protocol lists are updated manually. Comparing manually edited protocol lists to find a common protocol for both gateways, as taught by Sawyer, *is not* comparing the attributes of different protocols, as recited in independent Claim 1. As further

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<sup>3</sup> See Sawyer at column 7, lines 11-15 and in step 114 in Figure 4.

<sup>4</sup> See Sawyer at column 13, lines 49-60.

<sup>5</sup> See Sawyer at column 4, lines 10-13.

explained in Claim 1, the attributes of different protocols are compared, and consequently, it can be determined if an overlapping language is available or not.

Accordingly, even if the combination of Danielson, Mendelson, St-Pierre and Sawyer were *in arguendo* assumed proper, Danielson, Mendelson, St-Pierre, and Sawyer whether taken alone or in combination, do not teach “said central controller includes a protocol coordination mechanism that compares attributes of different protocols supported by said first adapter and said second adapter when establishing said communication session between said first object and said second object,” as recited in amended independent Claim 1.

In addition, Applicants also respectfully submit that the applied references, Danielson, in view of Mendelson, St-Pierre, and Sawyer, fail to teach or suggest all the features of Applicants’ Claim 1, regarding the selecting of a protocol that ***minimizes a translation burden to a router***, as recited in amended independent Claim 1. The outstanding Office Action asserts that Sawyer teaches such a feature.<sup>6</sup> Applicants respectfully disagree, since Sawyer merely teaches at column 4, lines 55-57 that the transcoders 70, 71 may each be capable of translating a number of communication protocols. Sawyer also recites at from column 7, line 66 to column 8, line 5 “in a decision task 128, originating gateway 44 ascertains which of the originating and terminating protocols requires the greater number of ***system resources***. In a preferred embodiment, this step is carried out in the interest of ***reducing system overhead*** by shifting a majority of the processing done by the originating gateway 44 to either originating gateway 44 or terminating gateway 48” (emphasis added). In other words, Sawyer tries to reduce an entire system overhead by shifting processing to either one of the gateways. Sawyer’s system 20 includes a network 22, originating units 32, 34, and terminating units 36, 38, wherein the network 22 also includes ground-based

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<sup>6</sup> See the outstanding Office Action at page 11, lines 6-13 pointing to Sawyer at column 4, lines 10-20 and lines 52-67 and at column 7, lines 11-30.

gateways 44, 48 and satellites 46, 50, 52.<sup>7</sup> However, Applicants' Claim 1 selects a protocol that minimizes a *translation burden to a router*, and does not reduce a system overhead by centralizing the processing to either one of the gateways 44 or 48. As further explained in Applicants' dependent Claim 2, the router is included in the central controller, and the router is configured to receive information from said first adapter and to coordinate the communication session between the first and second object.

Furthermore, Applicants' Claim 1 recites that the protocol coordination mechanism *identifies protocols that are within a vocabulary of the first and second objects, and further selects a protocol* that minimizes a translation burden to a router. In Sawyer's system, no protocol is selected that is within a vocabulary of the first and second objects, since Sawyer teaches that decision task 128 either selects the originating protocol or the terminating protocol.<sup>8</sup> Consequently, and as shown in Figure 4, either the originating gateway or the terminating gateway will translate the protocols. Accordingly, choosing either the originating or terminating protocol and performing protocol translation in the corresponding gateway, as described in Sawyer, *is not* identifying protocols that are within a vocabulary of the first and second objects, and further selects a protocol that minimizes a translation burden to a router, as claimed by Applicants.

The other references Danielson, Mendelson, St. Pierre and Sawyer are also silent on such a feature regarding the minimizing of a translation burden. Accordingly, even if we assume that the combination of these references is proper, the combination fails to teach or suggest all the features of Applicants' independent Claim 1.

Independent Claims 7, 13 and 27 recite limitations analogous to the limitations recited in independent Claim 1. Moreover, Claims 7, 13 and 27 have been amended in a manner

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<sup>7</sup> See Sawyer at column 3, lines 22-42 and in corresponding Figure 1.

<sup>8</sup> See Sawyer at column 8, lines 6-17 and in step 128 in Figure 4.

analogous to the amendment to Claim 1. Accordingly, for the reasons stated above for the patentability of Claim 1, Applicants respectfully submit that the rejections of Claims 7, 13 and 27 are also believed to be overcome in view of the arguments regarding independent Claim 1

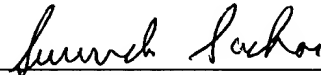
Therefore, in light of the above discussion and amendments, Applicant respectfully submits that independent Claims 1, 7, 13, and 27 (and all associated dependent claims) patentably define over Danielson, Mendelson, St-Pierre, and Sawyer. It is therefore respectfully requested that the rejection of Claims 1-29, 31-32 and 34-35 be withdrawn.

The present amendment is submitted in accordance with the provisions of 37 C.F.R. §1.116, which after Final Rejection permits entry of amendments placing the claims in better form for consideration on appeal. As the present amendment is believed to overcome outstanding rejections under 35 U.S.C. §103(a), the present amendment places the application in better form for consideration on appeal. In addition, the present amendment is not believed to raise new issues because the changes to Claims 1, 7, 13 and 27 merely recite limitations previously introduced in Claims 30, 33 and 36, and the changes to Claims 2-3 and 8-9 are of a minor nature. It is therefore respectfully requested that 37 C.F.R. §1.116 be liberally construed, and that the present amendment be entered.

Consequently, in view of the present amendment and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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